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FILE HCAPLUS

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L4 ANSWER 1 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:452955 HCAPLUS
DOCUMENT NUMBER: 141:22207
TITLE: Human monoclonal antibodies against CD25
INVENTOR(S): Schuurman, Janine; **Havenith, Catharina Emanuele Gerarda**; Parren, Paul; Van De Winkel, Jan G. J.; Williams, Denise Leah; Petersen, Jorgen; Baadsgaard, Ole
PATENT ASSIGNEE(S): Genmab A/s, Den.
SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004045512	A2	20040603	WO 2003-US36126	20031114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004170626	A1	20040902	US 2003-714353	20031114
PRIORITY APPLN. INFO.:			US 2002-426690P	P 20021115

AB Isolated human monoclonal antibodies which bind to and inhibit human CD25, and related antibody-based compns. and mols., are disclosed. The human

antibodies can be produced by a hybridoma, a transfectoma or in a nonhuman transgenic animal, e.g., a transgenic mouse, capable of producing multiple isotypes of human monoclonal antibodies by undergoing V(D)J recombination and isotype switching. Also disclosed are pharmaceutical compns. comprising the human antibodies, nonhuman transgenic animals, hybridomas and transfectomas which produce the human antibodies, and therapeutic and diagnostic methods for using the human antibodies.

L4 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:117156 HCAPLUS
DOCUMENT NUMBER: 140:180235
TITLE: Purification of preproinsulins using two step ion exchange chromatography
INVENTOR(S): **Thurow, Horst; Blumenstock, Hans; Havenith, Chantalle**
PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany
SOURCE: Ger. Offen., 19 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10235168	A1	20040212	DE 2002-10235168	20020801
CA 2493539	AA	20040212	CA 2003-2493539	20030718
WO 2004013176	A1	20040212	WO 2003-EP7820	20030718
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1527097	A1	20050504	EP 2003-766211	20030718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005080000	A1	20050414	US 2003-632414	20030801

PRIORITY APPLN. INFO.:

DE 2002-10235168	A	20020801
US 2002-433726P	P	20021216
WO 2003-EP7820	W	20030718

AB The invention refers to a procedure for chromatog. purification of preproinsulin whereby higher-mol. weight substances from aqueous solution of preproinsulin are separated through a first chromatog. on an anion exchange resin in flow-through mode and a subsequent second chromatog. on a cation exchanger in the adsorption mode, as well as to a procedure for production of insulin, which also includes the procedure for production of preproinsulin.

L4 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:295740 HCAPLUS
DOCUMENT NUMBER: 136:384936
TITLE: Rat monocyte-derived dendritic cells function and migrate in the same way as isolated tissue dendritic cells

AUTHOR(S): Richters, C. D.; Mayen, I.; **Havenith, C. E. G.** ; Beelen, R. H. J.; Kamperdijk, E. W. A.
CORPORATE SOURCE: Department of Molecular Cell Biology, Faculty of Medicine, VUMC, Amsterdam, 1081 BT, Neth.
SOURCE: Journal of Leukocyte Biology (2002), 71(4), 582-587 CODEN: JLBIE7; ISSN: 0741-5400
PUBLISHER: Federation of American Societies for Experimental Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Dendritic cells (DC) are the most potent antigen-presenting cells and are therefore useful to induce immune responses against tumor cells in patients. DC can be generated in vitro from monocytes using GM-CSF and IL-4, the so-called monocyte-derived DC (MoDC). To achieve antitumor responses, MoDC must be able to migrate to the draining lymph nodes after injection to induce cytotoxic T cells. Therefore, we studied migration of MoDC in a rat model. Functional rat MoDC were generated from PVG-RT7B rats and injected s.c. into PVG rats. These rat strains differ only at one epitope of the leukocyte-common antigen, which can be recognized by the antibody His 41. The advantage is that migrated cells can be detected in the draining lymph nodes by staining sections with His 41+; thus, migration is not influenced by labeling procedures. Rat MoDC migrated to the T-cell areas of the draining lymph nodes, just as isolated Langerhans cells or spleen DC do. In contrast, monocytes also migrated to the B-cell areas and the medulla.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:89287 HCAPLUS
DOCUMENT NUMBER: 137:123627
TITLE: Gut-associated lactobacilli for oral immunisation
AUTHOR(S): **Havenith, Carin E. G.**; Seegers, Jos F. M. L.; Pouwels, Peter H.
CORPORATE SOURCE: Department of Infection and Immunology, Special Programme Infectious Diseases, TNO Prevention and Health, Leiden, 2301 CE, Neth.
SOURCE: Food Research International (2002), 35(2/3), 151-163 CODEN: FORIEU; ISSN: 0963-9969
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Lactobacilli have a number of properties which render them highly suited as vehicles for the delivery to the mucosa of compds. that are of pharmaceutical interest. Many strains of the genus Lactobacillus are capable of colonizing specific regions of the body e.g. the oral cavity and the gastro-intestinal and uro-genital tract, where they play an important role in maintaining a balanced ecosystem. Moreover, lactobacilli have been used for many centuries in food fermentation processes and are considered as GRAS organisms that can safely be used also for medical and veterinarian applications. Recent years have seen an impressive growth in the authors' understanding of the mol. genetic properties of lactobacilli and how to exploit this knowledge for the expression of foreign proteins. The immunomodulating capacity of lactobacilli together with the possibility to target antigens to specific sites of the bacterium offers attractive opportunities for the treatment of infectious diseases through vaccination, and of auto-immune diseases or other immune disorders by modulating the immune response in a directed and

predetd. way. In this overview the present state of the art regarding systems for the high-level expression of foreign antigens will be presented, as well as the authors' knowledge of the mol. mechanisms of mucosal adherence of lactobacilli. Finally, some immunol. properties of lactobacilli will be discussed and their potential use as delivery vehicles for oral immunization purposes will be highlighted.
REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:835371 HCAPLUS
DOCUMENT NUMBER: 136:323759
TITLE: Analysis of monocyte chemotactic protein-1 production in different major histocompatibility complex-restricted antigen presentation systems
AUTHOR(S): Tekstra, Janneke; Tjin, Esther P. M.; Tuk, Cornelis W.; Broekhuis-Fluitsma, Donna; **Havenith, Carin E. G.**; Beelen, Robert H. J.
CORPORATE SOURCE: Department of Cell Biology and Immunology, Faculty of Medicine, Vrije Universiteit, Amsterdam, 1081 BT, Neth.
SOURCE: Clinical Immunology (San Diego, CA, United States) (2001), 101(1), 77-85
CODEN: CLIIFY; ISSN: 1521-6616
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the present study the production of the CC chemokine monocyte chemotactic protein-1 (MCP-1) in several MHC II-restricted antigen presentation systems was investigated in vitro. To assess which type of antigen-presenting cell (APC) influences MCP-1 production during antigen presentation, cultures enriched for different APC populations were prepared and MCP-1 production was determined Our results showed that APCs that effectively induce a T cell response also produce elevated amts. of MCP-1. The MCP-1 production is highest in the memory-driven secondary response against a single antigen. Despite a massive T cell proliferation, low MCP-1 concns. are found in Con A-induced cultures. These results suggest that T cell proliferation alone is not sufficient for MCP-1 production and that stimulation of the APC during the process of antigen presentation results in MCP-1 production Based on our results and the literature, we propose a model for MCP-1 as an enhancer of the adaptive immune response. (c) 2001 Academic Press.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:263963 HCAPLUS
DOCUMENT NUMBER: 136:58763
TITLE: Effect of PD fluid instillation on the peritonitis-induced influx and bacterial clearing capacity of peritoneal cells
AUTHOR(S): Hekking, Liesbeth H. P.; Huijsmans, Agnes; Van Gelderop, Erwin; Wieslander, Andes P.; **Havenith, Carin E. G.**; van den Born, Jacob; Beelen, Robert H. J.
CORPORATE SOURCE: Department of Cell Biology and Immunology, Faculty of Medicine, Vrije Universiteit, Amsterdam, 1081 BT,

Neth.
SOURCE: Nephrology, Dialysis, Transplantation (2001), 16(3), 679-682
CODEN: NDTREA; ISSN: 0931-0509
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The commonly used peritoneal dialysis fluids contain glucose as the osmotic agent. Heat sterilization leads to the formation of glucose degradation products which contribute, together with glucose, to the formation of advanced glycation end-products (AGEs). AGEs have been shown to be present in the peritoneal cavity. Methods have been developed to minimize the amount of glucose degradation products in peritoneal dialysis fluids. In a rat peritoneal dialysis model, we compare the effect of a commonly used peritoneal dialysis fluid, Gambrosol, with a newly developed peritoneal dialysis fluid, PD-Bio, on the influx and functional capacity of the peritoneal cells after 2 wk of peritoneal dialysis fluid instillation. Three groups of animals were used: rats received daily infusion with 15 mL of either 4% Gambrosol (group 1) or 4% PD-Bio (group 2), and a control group of animals did not receive fluid (group 3). After 2 wk of PD fluid instillation, all the animals were injected with a 0.5 mL suspension containing 3 + 108 colony-forming units of Staphylococcus aureus. The in vivo bacterial clearing capacity was determined after 15 h. A statistically significant higher leukocyte influx was found in the control group compared with both PD fluid-injected groups. No statistical differences in bacterial clearing were observed among the three groups, although the number of bacteria recovered from the PD-Bio group tended to be lower than that from the Gambrosol group. Moreover, in both PD fluid instillation groups, the bacteria tended to be cleared more slowly compared with the control group. The number of mesothelial cells in the PD fluid groups was significantly greater than in the control group. No differences were observed in bacterial clearing capacity, leukocyte influx and mesothelial cell number after a 2 wk exposure of the peritoneal cavity to Gambrosol vs PD-Bio.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:633042 HCAPLUS
DOCUMENT NUMBER: 133:280276
TITLE: Engineering the microflora to vaccinate the mucosa: serum immunoglobulin G responses and activated draining cervical lymph nodes following mucosal application of tetanus toxin fragment C-expressing lactobacilli
AUTHOR(S): Shaw, D. M.; Gaerthe, B.; Leer, R. J.; Van Der Stap, J. G. M. M.; Smittenaar, C.; Den Bak-Glashouwer, M.-J. Heijne; Thole, J. E. R.; Tielen, F. J.; Pouwels, P. H.; **Havenith, C. E. G.**
CORPORATE SOURCE: TNO-Prevention and Health, Special Program Infectious Diseases, Leiden, 2315 CE, Neth.
SOURCE: Immunology (2000), 100(4), 510-518
CODEN: IMMUAM; ISSN: 0019-2805
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The delivery of antigens to mucosal-associated lymphoid tissues in pediatric and immunocompromised populations by safe, non-invasive vectors, such as

commensal lactobacilli, represents a crucial improvement to prevailing vaccination options. In this report, the authors describe the oral and nasal immunization of mice with vaccines constructed through an original system for heterologous gene expression in Lactobacillus in which the 50,000-mol. weight (MW) fragment C of tetanus toxin (TTFC) is expressed either as an intracellular or a surface-exposed protein. Our data indicate that L. plantarum is more effective in this respect than L. casei and that, under the exptl. conditions investigated, delivery of TTFC expressed as an intracellular antigen is more effective than cell-surface expression. Immunization of mice with live recombinant lactobacilli induced significant levels of circulating TTFC-specific IgG following nasal or oral delivery of vaccine strains. In addition, following nasal delivery, secretory IgA (sIgA) was induced in bronchoalveolar lavage fluids, as were antigen-specific antibody-secreting cells and antigen-specific T-cell activation in draining lymph nodes, substantiating their potential for safe mucosal delivery of pediatric vaccines.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:608776 HCAPLUS
DOCUMENT NUMBER: 133:203411
TITLE: Covalently bridged insulin dimers
INVENTOR(S): Hoecker, Hartwig; **Havenith, Chantalle**; Brandenburg, Dietrich
PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050456	A2	20000831	WO 2000-EP1530	20000224
WO 2000050456	A3	20001207		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2363639	AA	20000831	CA 2000-2363639	20000224
EP 1161452	A2	20011212	EP 2000-909247	20000224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003525864	T2	20030902	JP 2000-601034	20000224
AU 765076	B2	20030911	AU 2000-31601	20000224
US 2002160938	A1	20021031	US 2001-934766	20010823
ZA 2001006971	A	20021122	ZA 2001-6971	20010823
PRIORITY APPLN. INFO.:			DE 1999-19908041 A	19990224
			WO 2000-EP1530 W	20000224

OTHER SOURCE(S): MARPAT 133:203411
AB Modified insulin dimers are prepared in which the α-amino groups of

the Phe1 residues of the 2 B chains are joined with C(O)(CRR')nC(O) [R, R' = H, NH2, C1-10 alkyl, (substituted) aryl; n = 0-16] and residues 26-30 of the 2 B chains are replaced with X [X = C1-10 alkyl, (substituted) aryl, (substituted) aryloxy, amino acid, NRR'] for use in medicaments for treatment of diabetes. The dimers are synthesized from the corresponding monomers (prepared enzymically or by genetic engineering methods) by provision with protecting groups as needed and reaction with an activated dicarboxylic acid. The dimers show high affinity for insulin receptors, very high biol. activity, and selectivity for the liver.

L4 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:535159 HCAPLUS
DOCUMENT NUMBER: 133:103813
TITLE: Method for drying insulin and other protein crystals
INVENTOR(S): Deusser, Rolf; Kramer, Peter; **Thurow, Horst**
PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044767	A2	20000803	WO 2000-EP287	20000115
WO 2000044767	A3	20011108		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19903125	A1	20000810	DE 1999-19903125	19990127
CA 2361397	AA	20000803	CA 2000-2361397	20000115
BR 2000007713	A	20011127	BR 2000-7713	20000115
EP 1185548	A2	20020313	EP 2000-903580	20000115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002535415	T2	20021022	JP 2000-596023	20000115
AU 764353	B2	20030814	AU 2000-25418	20000115
RU 2235730	C2	20040910	RU 2001-123684	20000115
PRIORITY APPLN. INFO.:			DE 1999-19903125 A	19990127
			WO 2000-EP287 W	20000115

AB The invention relates to a method for drying protein crystals contained in an aqueous protein crystal suspension. The method is characterized in that the protein crystal suspension is dried in a centrifugal dryer and that after the protein crystals have been extracted from the protein crystal suspension by filtration said protein crystals are preferably transferred into a drying medium which consists of a mixture of water and a non-aqueous solvent which can be mixed with water to any ratio and has a lower vapor pressure than water. A drying gas humidified with water is advantageously used and the protein crystals are advantageously dried in a fluidized bed. The method is used for drying various types of insulin crystals, e.g. pork insulin, human insulin, recombinant insulin.

L4 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:288632 HCAPLUS
DOCUMENT NUMBER: 133:99697
TITLE: Novel insulin dimers: semisynthesis and receptor studies
AUTHOR(S): **Havenith, Chantalle**; Sundermann, Erik; Rutten, Stephan; Hocker, Hartwig; Brandenburg, Dietrich
CORPORATE SOURCE: Deutsches Wollforschungsinstitut an der RWTH Aachen, Aachen, D-52062, Germany
SOURCE: Peptides 1998, Proceedings of the European Peptide Symposium, 25th, Budapest, Aug. 30-Sept. 4, 1998 (1999), Meeting Date 1998, 590-591. Editor(s): Bajusz, Sandor; Hudecz, Ferenc. Akademiai Kiado: Budapest, Hung.
CODEN: 68WKAY
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A report from a symposium on the semisynthesis and receptor studies of the novel insulin dimers. The affinity to the insulin receptor in intact lymphocytes as well as the dynamic binding behavior of the dimers is studied.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:578712 HCAPLUS
DOCUMENT NUMBER: 132:45093
TITLE: Receptor studies with novel insulin analogues and photoaffinity labelling techniques
AUTHOR(S): Brandenburg, D.; Fabry, M.; Fischer, Y.; Gattner, H.-G.; Grotzinger, J.; Hagelstein, M.; **Havenith, C.**; Kurapkat, G.; Rutten, S.; Siedentop, M.; Wollmer, A.
CORPORATE SOURCE: Deutsches Wollforschungsinstitut an der RWTH Aachen, Aachen, D-52062, Germany
SOURCE: Peptide Science: Present and Future, Proceedings of the International Peptide Symposium, 1st, Kyoto, Nov. 30-Dec. 5, 1997 (1999), Meeting Date 1997, 223-225. Editor(s): Shimonishi, Yasutsugu. Kluwer: Dordrecht, Neth.
CODEN: 68BYA5
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The receptors for insulin and IGF-I show a high degree of homol., but different regions have been postulated for ligand binding. The authors' work aims at determining structure-function relationships, especially the structural requirements for receptor binding, and the definition of contact sites in the ligand-receptor binding regions. The authors have replaced B26-tyrosine by D-alanine in des-(B27-B30)insulin-B26-amide (DTI) to give D-Ala-DT1 (1). The first and so far only antagonistic insulin analog is a covalent insulin dimer. To test whether the marked discrepancy between receptor binding and biopotency can be increased, they introduced binding-enhancing Arg residues into insulin dimers to give B29,B29'-suberoyl-(ArgA0insulin)2 (3) and B1,B1'-suberoyl-(ArgA0insulin)2 (5). D-Ala in position B26 gives rise to a dramatic increase in receptor binding and in-vitro activity. The addition of Arg to B29,B29'-suberoyl

insulin dimer (2) increased receptor binding but, unexpectedly, also activity. It is striking that 3 can elicit maximal insulin effect in cardiomyocytes but, like 2, is unable to do so in 3T3-L1 cells (53%). The authors conclude that the monomeric and dimeric analogs are interesting lead compds. for refined receptor/activity studies directed towards signal generation and transduction in various cell systems. Recombinant human IGF-I was acylated with Asa(4-azidosalicyloyl)-OSu. The 3 monosubstituted derivs. were subfractionated by RP-HPLC to give pure Nα-, NεB28-, and mixed NεB65/NεB68-Asa-IGF-I. Pure NαA1- and NεB29-Asa-insulins were prepared similarly. The radioiodinated probes could be specifically crosslinked to overexpressed receptors for insulin, IGF-I and 2 chimeric insulin/IGF-I receptors in 4 NIH3T3 cell lines. Tryptic digestion reveals characteristic labeling and fragmentation patterns which are currently analyzed further to determine the ligand-receptor contact sites.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:52199 HCAPLUS
DOCUMENT NUMBER: 130:276517
TITLE: Talc-induced inflammation in the pleural cavity
AUTHOR(S): Van Den Heuvel, M. M.; Smit, H. J. M.; Barbierato, S. B.; **Havenith, C. E. G.**; Beelen, R. H. J.; Postmus, P. E.
CORPORATE SOURCE: Dept of Cell Biology and Immunology, Faculty of Medicine of Free University, Amsterdam, 1081 BT, Neth.
SOURCE: European Respiratory Journal (1998), 12(6), 1419-1423
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Talc administration into the pleural cavity induces pleurodesis. In order to study the inflammatory process that causes pleurodesis, the cellular kinetics in the pleural space after the administration of talc was studied along with its relation to chemokine concns. in the pleural fluid. Thirteen consecutive patients with idiopathic spontaneous pneumothorax and eight patients with malignant pleural effusions received talc pleurodesis. The first group was treated with talc poudrage, whereas the second group was treated with talc slurry. Pleural fluids were isolated before talc administration as well as 3, 6, 24, 48 and 72 h afterwards. Talc induced a rapid polymorphonuclear neutrophil (PMN) influx followed by an accumulation of macrophages. In addition, increased production of interleukin (IL)-8 and monocyte chemotactic protein (MCP)-1 was observed The talc-induced PMN influx reached its maximum after 3-24 h and was related to the IL-8 concentration In contrast, the MCP-1 was not related to the macrophage accumulation. Talc-induced inflammation in patients with idiopathic spontaneous pneumothorax and malignant pleural effusion is characterized by an influx of polymorphonuclear neutrophils related to interleukin-8, followed by an accumulation of monocytes.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:401659 HCAPLUS
DOCUMENT NUMBER: 129:112570
TITLE: CO2 reduction - is increasing the diesel share the way

to go?
AUTHOR(S): Rijkeboer, R. C.; **Havenith, C.**; Baarbe, H. L.
CORPORATE SOURCE: TNO Road-Vehicles Research Institute, Delft, Neth.
SOURCE: IMechE Conference Transactions (1998), (4, Combustion Engines and Hybrid Vehicles), 17-26
CODEN: ICTRFH; ISSN: 1356-1448
PUBLISHER: Professional Engineering Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Different scenarios have been compared for the future reduction of CO2 emissions under real-world driving conditions. A significant shift towards diesel appears to only marginally benefit with regard to CO2 emissions, but would carry a real NOx penalty. Introduction of DI (direct injection) gasoline engines and a shift towards gaseous fuels for spark ignition engines would have similar results for CO2 without this NOx penalty. Even so, the possible gains are limited. The most effective way to obtain significant CO2 redns. for the EU car fleet in the long term seems to be an all-out approach towards more fuel-efficient vehicles in combination with innovative technologies. It is the aim of this paper to enable more soundly based decision-making.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:8323 HCAPLUS
DOCUMENT NUMBER: 126:45965
TITLE: Heterogeneity of mouse brain macrophages in alloantigen presentation to naive CD8+ T cells as revealed by a panel of microglial cell lines
AUTHOR(S): Askew, David; **Havenith, Carin E. G.**; Walker, William S.
CORPORATE SOURCE: Department of Immunology, St. Jude Children's Research Hospital, Memphis, TN, USA
SOURCE: Immunobiology (Stuttgart) (1996), 195(4-5), 417-430
CODEN: IMMND4; ISSN: 0171-2985
PUBLISHER: Fischer
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 56 refs. Topics discussed include strategies for generating mouse macrophage cell lines; characterization of microglial cell lines; and role of interleukin-12 and B7-2 in alloantigen presentation to naive CD8+ T-cells.

L4 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:1003602 HCAPLUS
DOCUMENT NUMBER: 124:84806
TITLE: Mouse microglial cell lines differing in constitutive and interferon-γ-inducible antigen-presenting activities for naive and memory CD4+ and CD8+ T cells
AUTHOR(S): Walker, William S.; Gatewood, Janet; Olivas, Elvia; Askew, David; **Havenith, Carin E. G.**
CORPORATE SOURCE: Department of Immunology, St. Jude Children's Research Hospital, Memphis, TN, USA
SOURCE: Journal of Neuroimmunology (1995), 63(2), 163-74
CODEN: JNRIDW; ISSN: 0165-5728
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors developed a panel of non-virus transformed cell lines derived from individual microglial precursors residing in the brains of normal mice. These colony stimulating factor-1-dependent cell lines are B7-1+ (CD80), Mac-1+, Mac-2+, Mac-3+, CD45+, MHC class I+, colony stimulating factor-1 receptor+, and they ingest antibody-coated particles. However, the cell lines differ in their expression of B7-2 (CD86), F4/80, Ly-6C, and MHC class II mols. They also differ in their ability to constitutively process and present antigens to naive CD4+ and CD8+ T cells, memory CD4+ and CD8+, and in the manner by which interferon γ modulates their antigen-presenting activities. These cell lines should be valuable as models for studies on the immunobiol. of the microglia.

L4 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:253185 HCAPLUS
DOCUMENT NUMBER: 118:253185
TITLE: T cell priming in situ by intratracheally instilled antigen-pulsed dendritic cells
AUTHOR(S): **Havenith, Carin E. G.**; Breedijk, Annette J.; Betjes, Michiel G. H.; Calame, Wim; Beelen, Robert H. J.; Hoefsmit, Elisabeth C. M.
CORPORATE SOURCE: Dep. Cell Biol., Vrije Univ., Amsterdam, 1081 BT, Neth.
SOURCE: American Journal of Respiratory Cell and Molecular Biology (1993), 8(3), 319-24
CODEN: AJRBEL; ISSN: 1044-1549
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Splenic dendritic cells (DC) and alveolar macrophages (AM) were pulsed with antigen in vitro and subsequently intratracheally instilled to test whether these cells have the capacity to sensitize T cells in the draining lymph nodes of the lung. Antigen-pulsed DC, instilled in the bronchoalveolar lumen, induce antigen-specific T cell priming in vivo in the draining lymph nodes. T cell priming is only seen with viable but not with killed antigen-pulsed DC. Amts. as low as 5-10 + 103 cells can still induce some responsiveness. In addition, instillation of viable as well as killed pulsed Ia-neg. AM also leads to T cell priming, although .apprx.10 times higher nos. of cells had to be used in comparison with DC. Apparently, DC instilled in the bronchoalveolar lumen present antigen directly to naive T cells, whereas for AM other mechanisms are involved.

L4 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:137837 HCAPLUS
DOCUMENT NUMBER: 102:137837
TITLE: Aqueous protein solutions resistant to denaturation and their use
INVENTOR(S): **Thurow, Horst**
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3325223	A1	19850124	DE 1983-3325223	19830713

EP 131864	A2	19850123	EP 1984-107889	19840706
EP 131864	A3	19870826		
EP 131864	B1	19900926		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 56876	E	19901015	AT 1984-107889	19840706
FI 8402798	A	19850114	FI 1984-2798	19840711
FI 80276	B	19900131		
FI 80276	C	19900510		
ES 534195	A1	19851001	ES 1984-534195	19840711
DK 8403426	A	19850114	DK 1984-3426	19840712
DK 168030	B1	19940124		
AU 8430537	A1	19850117	AU 1984-30537	19840712
AU 579106	B2	19881117		
JP 60038398	A2	19850227	JP 1984-143378	19840712
JP 05082397	B4	19931118		
ZA 8405384	A	19850227	ZA 1984-5384	19840712
CA 1229083	A1	19871110	CA 1984-458725	19840712
IL 72389	A1	19881130	IL 1984-72389	19840712
ES 535482	A1	19860901	ES 1984-535482	19840829
US 4637834	A	19870120	US 1986-825965	19860205
PRIORITY APPLN. INFO.:			DE 1983-3325223	A 19830713
			EP 1984-107889	A 19840706
			US 1984-629847	A1 19840711

AB Polymers are synthesized for stabilization of proteins against adsorption on hydrophobic surfaces and denaturation. These stabilizer polymers can be used for pharmaceutical prepns., especially in a dosing apparatus, such as an implanted or external automatic pump. Other uses include applications in steps of protein purification Thus, propylene glycol [57-55-6] was reacted with KOH to produce propylene oxide, which was reacted with ethylene oxide. The final product was a block polymer consisting of a linear chain of polypropylene glycol with an average mol. weight of 1750 daltons, which included polyethylene glycol on each side of the polypropylene glycol. When this polymer (0.1% in final solution) was added to a solution of ovalbumin (0.1% in final solution), there was no turbidity in the protein solution (no denaturation) after several months of storage at 37° with rotation of the tube containing the sample. However, without the stabilizer, the ovalbumin was markedly denatured after 5 days. Other substances stabilized with this polymer included myoglobin, human Ig, and β-galactosidase [9031-11-2], and human fibroblast interferon was stabilized by a similar polymer.

L4 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:635471 HCAPLUS
DOCUMENT NUMBER: 101:235471
TITLE: Stabilization of dissolved proteins against denaturation at hydrophobic interfaces
AUTHOR(S): **Thurow, H.**; Geisen, K.
CORPORATE SOURCE: Hoechst A.-G., Frankfurt/Main, D-6230/80, Fed. Rep. Ger.
SOURCE: Diabetologia (1984), 27(2), 212-18
CODEN: DBTGAJ; ISSN: 0012-186X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Polypropylene glycol [25322-69-4]/polyethylene glycol [25322-68-3] block polymers prevent both the adsorption of dissolved proteins to hydrophobic interfaces and the resultant aggregation. At a concentration of 0.001% (weight/vol), the block polymer, Genapol PF 10 [9003-11-6], stabilizes

insulin [9004-10-8] solns. over a wide range of concns. The effectiveness of mol. variants of Genapol PF 10 to stabilize other proteins (human γ-globulin, myoglobin and serum albumin) is presented also.

L4 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:629903 HCAPLUS
DOCUMENT NUMBER: 101:229903
TITLE: The thermodynamic and kinetic behavior of the four-coordinate carbocation Ph3C(DMF)+ - a NMR and relaxation study
AUTHOR(S): **Blumenstock, H.**; Dickert, F. L.; Hammerschmidt, A.
CORPORATE SOURCE: Inst. Phys. Theor. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Physikalische Chemie (Muenchen, Germany) (1984), 139, 123-32
CODEN: ZPCFAX; ISSN: 0044-3336
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Trityl ions form an 1:1 adduct with DMF according to titration curves via the NMR chemical shift. This 4-coordinate carbocation [Ph3C(DMF)+] further reacts with the carbenium ion (Ph3C+) in a consecutive step. In CH2Cl2 the rate consts. of formation and dissociation of Ph3C(DMF)+ were determined by NMR line shape anal. [k12(298 K) = 1.5 + 108 M-1 s-1; k21(298 K) = 4.2 + 107 s-1]. From the rate constant of the reaction between the carbocation and the CF3CO2 anion (measured with pressure jump expts.) and the formation equilibrium of the carbocation, the recombination rate of the carbenium ion with CF3CO2- was calculated The very high value of k(298 K) = 2.5 + 109 M-1 s-1 indicates that CF3CO2- in DMF reacts as a naked anion.

L4 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:209058 HCAPLUS
DOCUMENT NUMBER: 100:209058
TITLE: The effect of both π-donor substituents and acid media on the formation of trityl cations, studied by relaxation methods and NMR spectroscopy
AUTHOR(S): **Blumenstock, H.**; Dickert, F.; Fackler, H.; Hammerschmidt, A.
CORPORATE SOURCE: Inst. Phys. Theor. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-852, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Physikalische Chemie (Muenchen, Germany) (1983), 135, 157-70
CODEN: ZPCFAX; ISSN: 0044-3336
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Trityl trifluoroacetates were studied to determine why ion formation from ionogens is favored by acid media. From relaxation measurements, NMR spectroscopy, and conductivity studies it was found that this effect is due to anion solvation by acid, namely a specific solvation of the free anions and a statistical solvation of the anions bound in the ionogen. This leads to a drastically reduced ion recombination rate constant even at low concns. of acid and an increased dissociation rate constant at rather high concns. of acid.

L4 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:456410 HCAPLUS
DOCUMENT NUMBER: 99:56410
TITLE: Investigations on a passenger car swirl-chamber diesel engine using different alcohol fuels
AUTHOR(S): Pischinger, Franz F.; Burghardt, Peter; **Havenith, Cornelis**; Weidmann, Kurt
CORPORATE SOURCE: Inst. Appl. Thermodyn., Tech. Univ., Aachen, Fed. Rep. Ger.
SOURCE: Society of Automotive Engineers, [Special Publication] SP (1983), SP-542(Alternate Fuels Spark Ignition Diesel Engines), 43-53
CODEN: SAESA2; ISSN: 0099-5908
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The use of alc.-diesel fuel blends permit a good engine operation without alteration of the engine adjustment. With a reduced soot emission and considerably reduced particulate emissions improvements in energy consumption can be achieved, especially in the upper load range. The increased hydrocarbons and CO emissions in the lower load range can be avoided by adapting the injection timing for alc. blend operation. The use of a MeOH-ignition improver mixture permits a complete substitution of the conventional diesel fuel and a soot-free combustion. At low loads thermal efficiency of the alc. engine is inferior, whereas in the higher load range significant advantages in efficiency occur.

L4 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1981:589970 HCAPLUS
DOCUMENT NUMBER: 95:189970
TITLE: The suitability of different alcohol-fuels for diesel engines by using the direct-injection method
AUTHOR(S): Pischinger, Franz F.; **Havenith, Cornelis**
CORPORATE SOURCE: Aachen Tech. Univ., Aachen, Fed. Rep. Ger.
SOURCE: Proc. Int. Symp. Alcohol Fuels Technol., 4th (1981), Meeting Date 1980, Volume 2, 619-25. Inst. Pesqui. Tecnol. Estado Sao Paulo S.A.: Sao Paulo, Brazil.
CODEN: 45TSAY
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The suitability of injecting MeOH [67-56-1] or EtOH [64-17-5] combined with diesel fuel ignition spray into the combustion chamber of a diesel engine was investigated. Compared with the conventional diesel engine, the emission of gaseous pollutants as well as the combustion noise level are reduced by using the direct-injection method. While maintaining a high efficiency, the dual fueling concept also allows the use of alc. fuels with a high content of water or other impurities. The diesel fuel as an ignition fuel can also be substituted by a mixture of alc. and ignition improver without adverse effects on engine characteristics. Compared with the use of alc.-ignition improver mixts. in a standard diesel engine, the dual-fuel operation allows a considerable saving of the ignition improver. The mech. stress of the engine and the emission of gaseous pollutants are also lowered. Tests were carried out for MeOH-dual fuel operation using vegetable oils as ignition spray. The oils are suitable as pilot injection fuels.

L4 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1981:214619 HCAPLUS
DOCUMENT NUMBER: 94:214619
TITLE: Insulin crystalline suspension

INVENTOR(S): **Thurow, Horst**
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2933946	A1	19810312	DE 1979-2933946	19790822
ES 494260	A1	19820801	ES 1980-494260	19800814
EP 25868	A1	19810401	EP 1980-104879	19800816
EP 25868	B1	19820630		
R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
AT 1281	E	19820715	AT 1980-104879	19800816
DK 8003593	A	19810223	DK 1980-3593	19800821
DK 149347	B	19860512		
DK 149347	C	19861020		
AU 8061621	A1	19810409	AU 1980-61621	19800821
AU 539091	B2	19840913		
ZA 8005152	A	19810826	ZA 1980-5152	19800821
IL 60889	A1	19830731	IL 1980-60889	19800821
CA 1155439	A1	19831018	CA 1980-358705	19800821
JP 56032412	A2	19810401	JP 1980-114879	19800822

PRIORITY APPLN. INFO.: DE 1979-2933946 A 19790822
EP 1980-104879 A 19800816

AB Rhombohedral crystalline insulin (especially swine insulin) with 4 Zn structure is converted to rhombohedral crystals with 2 Zn structure by holding at room temperature to ≤45° in a <67% NaCl solution at pH 4.5-6. The 2 Zn structure is more stable. Thus, crystalline porcine insulin (450,000 IU) containing 0.5% Zn was dissolved in 400 mL 0.03N HCl, mixed with 15 mL 1% ZnCl2 in 0.03N HCl, and diluted with the HCl to 500 mL, mixed with 500 mL solution containing 70 g NaCl, 14 g NaOAc, and 10 mL 1N NaOH, and stirred and room temperature to give crystals with 4 Zn structure. The crystals were allowed to settle, 888 mL of the supernatant was removed and replaced by 1013 mL pH 5.4-5.5 solution containing 50 mg ZnCl2, 1.125 g NaCl, and 1N HCl, and the suspension was stirred 7 days at room temperature and 7 days at 37°. The x-ray spectrum showed complete conversion to 2 Zn structure.

L4 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1981:90319 HCAPLUS
DOCUMENT NUMBER: 94:90319
TITLE: Aqueous solutions of proteins stable against denaturation
INVENTOR(S): **Thurow, Horst**
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 18609	A1	19801112	EP 1980-102252	19800425
EP 18609	B1	19830921		
R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
DE 2917535	A1	19801106	DE 1979-2917535	19790430
DE 2917535	C2	19861030		
DE 2952119	A1	19810709	DE 1979-2952119	19791222
AT 4667	E	19831015	AT 1980-102252	19800425

PRIORITY APPLN. INFO.:

DE 1979-2917535	A	19790430
DE 1979-2952119	A	19791222
EP 1980-102252	A	19800425

AB Proteins, especially insulin [9004-10-8], in aqueous solns. are stabilized against denaturation by the presence of a surface-active polymer with alternating weakly hydrophobic and weakly hydrophilic segments. Thus, a mixture of 152.1 g propylene glycol and 125 g 40% KOH was dehydrated by vacuum distillation, and, at 120°, 4141 g propylene oxide, followed by 476 g ethylene oxide, was added. When the reaction was complete, lactic acid was added for neutralization. The product was vacuum distilled to remove volatiles and H2O to give a propylene glycol-ethylene glycol block copolymer [9003-11-6] with a mol. weight of 2000 and containing 10% polyoxyethylene. When a 0.1% solution of bovine or human serum albumin in 0.01M phosphate buffer, pH 7, was shaken with 10 ppm of such a polymer, the solution was clear for several months although a control was turbid after 7 days.

L4 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1981:20450 HCAPLUS
DOCUMENT NUMBER: 94:20450
TITLE: Insulin solution resistant to denaturation
INVENTOR(S): **Thurow, Horst**
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2917535	A1	19801106	DE 1979-2917535	19790430
DE 2917535	C2	19861030		
EP 18609	A1	19801112	EP 1980-102252	19800425
EP 18609	B1	19830921		
R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
AT 4667	E	19831015	AT 1980-102252	19800425
FI 8001361	A	19801031	FI 1980-1361	19800428
FI 70671	B	19860626		
FI 70671	C	19861006		
IL 59933	A1	19840629	IL 1980-59933	19800428
DK 8001851	A	19801031	DK 1980-1851	19800429
DK 160459	B	19910318		
DK 160459	C	19910826		
AU 8057877	A1	19801106	AU 1980-57877	19800429
AU 535040	B2	19840301		
ZA 8002583	A	19810429	ZA 1980-2583	19800429
CA 1146069	A1	19830510	CA 1980-350871	19800429

JP 55157518	A2	19801208	JP 1980-58553	19800430
JP 01018920	B4	19890407		
ES 494356	A1	19810716	ES 1980-494356	19800819
US 4783441	A	19881108	US 1983-564346	19831221
US 4885164	A	19891205	US 1987-136673	19871222
PRIORITY APPLN. INFO.:			DE 1979-2917535	A 19790430
			DE 1979-2952119	A 19791222
			EP 1980-102252	A 19800425
			US 1980-144040	A2 19800428
			US 1981-263720	A1 19810614
			US 1983-564346	A1 19831221

AB Surface-active agents, RO(CH2CHR1O)nR2, where R = R2 = H, C1-20-alkyl residue, C2-20-carboxylic acid residue, C1-10-alkylphenol residue, C1-20-alkylamine residue and R1 = H, Me, or Et, and n = 2-80, as homopolymers, block polymers, or mixed polymers in concns. of 2-200 mg/L to prevent denaturation of insulin [9004-10-8] solns. are described. E.g., up to 1,500,000 IU bovine, porcine, or human insulin or their des-β1-phenylalanine derivs. with ≤0.8 weight% Zn were dissolved in water. This solution was mixed with a solution containing a preservative such as phenol, an isotonic agent such as glycerin, and buffering agents to which was added the surface-active agent, such as Me(CH2)13O(CH2CH2O)4(CH2CHMeO)4H [37311-04-9].

L4 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	1980:599492 HCAPLUS
DOCUMENT NUMBER:	93:199492
TITLE:	Studies on the denaturation of dissolved insulin
AUTHOR(S):	**Thurow, H.**
CORPORATE SOURCE:	Hoechst A.-G., Frankfurt, D-6000, Fed. Rep. Ger.
SOURCE:	Insulin: Chem., Struct. Funct. Insulin Relat. Horm., Proc. Int. Insulin Symp., 2nd (1980), Meeting Date 1979, 215-21. Editor(s): Brandenburg, Dietrich; Wollmer, Axel. de Gruyter: Berlin, Fed. Rep. Ger. CODEN: 44BTA8
DOCUMENT TYPE:	Conference
LANGUAGE:	English

AB The rate of denaturation of insulin in solution was studied under different conditions. Insulin (400 IU/mL bovine insulin) was denatured after 1.5 min (pH 7.2) or 2 min (pH 3.5) in the absence of Zn. In the presence of Zn, denaturation occurred at 0.5 min. At 37° in neutral solution denaturation did not occur in the presence of Zn. At hydrophobic surfaces denaturation occurred at 20 h. Of 5 antioxidants tested, only 1 (nordihydroguaiaretic acid) extended the time of denaturation, and that extension was just 2 h. In the presence of SH reagents again insulin denatured at .apprx.20 h. Rotation expts. conducted at 5° indicated insulin denaturation after 4-5 mo, at 20° after 18 days, and at 37° after 20 h. Neutral insulin solns. stored at rest at 37° showed no turbidity or increased viscosity after 2 yr, but electropherograms indicated denaturation beginning at 3 mo which was complete at 12 mo. Thus, unlike agitated solns., insulin denatured during resting storage reamins dissolved. At 37° insulin denatures more rapidly at neutral (7.0-7.6) than at acid (3.5) pH and the addition of agents which shift aggregation equilibrium in the direction of the monomeric mol., i.e., urea, guanidine, pyridine, or detergents, substantially lowers the time required for denaturation. An addnl. charge at the amino end of the B-chain (B1-sulfopropionylinsulin) hastened denaturation.

L4 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1980:475301 HCAPLUS
DOCUMENT NUMBER: 93:75301
TITLE: Suitability of various diesel motor combustion processes for using alcohol motor fuels
AUTHOR(S): Pischinger, F.; **Havenith, C.**; Finsterwalder, G.
CORPORATE SOURCE: Fed. Rep. Ger.
SOURCE: VDI-Berichte (1980), 370, 331-8
CODEN: VDIBAP; ISSN: 0083-5560
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The use of direct injection of alc. and a gas oil ignition jet gives good diesel engine operation essentially without soot formation with substantial replacements of gas oil by MeOH [67-56-1] or EtOH [64-17-5]. The emission of gaseous pollutants and combustion noise is lower than from conventional diesel engines. Preliminary tests of direct MeOH injection with a fluidized combustion chamber resulted in further reduction of the already low NOx emissions from such combustion.

L4 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1980:93773 HCAPLUS
DOCUMENT NUMBER: 92:93773
TITLE: NMR spectroscopic studies on the kinetics of acid-catalyzed formation of tritylcarbenium ions
AUTHOR(S): **Blumenstock, H.**; Dickert, F.; Reichenbacher, A.
CORPORATE SOURCE: Inst. Phys. Theor. Chem., Univ. Erlangen-Nuernberg, Erlangen, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Physikalische Chemie (Muenchen, Germany) (1978), 113(2), 199-206
CODEN: ZPCFAX; ISSN: 0044-3336
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Formation of Ph3C+ from Ph3CO2CCF3 (I) was studied in MeCN by pulsed Fourier-transform 19F NMR. Since the concentration of I was small (2 + 10-3 to 5 + 10-2 M), a special procedure for excluding trace amts. of H2O was used. The dissociation of I was catalyzed by CF3CO2H, which formed a 1:1 complex with I.

L4 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1979:536585 HCAPLUS
DOCUMENT NUMBER: 91:136585
TITLE: An enzyme immunoassay (EIA) for progesterone in horse plasma
AUTHOR(S): Seeger, K.; **Thurow, H.**; Haede, W.; Knapp, E.
CORPORATE SOURCE: Hoechst A.-G., Frankfurt/Main, D-6230/80, Fed. Rep. Ger.
SOURCE: Journal of Immunological Methods (1979), 28(3-4), 211-17
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A simple enzyme immunoassay (EIA) for the measurement of progesterone (I) is described. Antibody against 11-OH-hemisuccinate-bovine serum albumin is bound to polystyrene tubes. 11-OH-hemisuccinyl-β-D-galactosidase is used as enzyme-coupled antigen and methylumbelliferyl-β-D-galactoside as substrate. Concns. down to 0.156 ng I/mL plasm or amts. of

93 pg I/tube are detectable. Probit anal. gave a linear relation between log concentration and percentage of binding. A comparison of EIA and radioimmunoassay gave a correlation coefficient of 0.81. The assay is sufficiently sensitive to estimate I levels in plasma.

L4 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1979:200169 HCAPLUS
DOCUMENT NUMBER: 90:200169
TITLE: Penetration of the polysaccharide capsule of Escherichia coli (Bi161/42) by bacteriophage K29
AUTHOR(S): Bayer, Manfred E.; **Thurow, Horst**; Bayer, Margret H.
CORPORATE SOURCE: Fox Chase Cancer Cent., Inst. Cancer Res., Philadelphia, PA, USA
SOURCE: Virology (1979), 94(1), 95-118
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The interaction between the capsulated E. coli strain K29 and a capsule K29-specific phage was studied, using virus adsorption kinetics and immunol. methods in combination with electron microscopy. The adsorption of the phage to capsulated wild-type (w.t.) E. coli was fast, with a rate constant of 1-2.5 + 10-8 mL/min at 37°, and 4 + 10-9 mL/min at 0°. Mutant strains with temperature-sensitive defects in production of capsule antigen showed a much reduced virus adsorption rate when grown at permissive temps. The virus, being capable of enzymically hydrolyzing the receptor polysaccharide, destroyed the macromol. structure of both the isolated polysaccharides (p.s.) and the capsule in vivo. Phage adsorption occurred without release of virus DNA. Virus adsorption carried out with w.t. cells in the presence of isolated p.s. revealed receptor competition in which the isolated p.s. from mutant cells was .apprx.103-fold less efficient than the isolated p.s. from the wild-type cells. Electron microscopy enabled following the virion in its travel through the w.t. capsule. In the capsule of the infected cell, a tunnel-shaped penetration path of the virus became visible; the path of the virus was often but not exclusively unidirectional toward the outer membrane (OM) of the cell. A virus particle that had reached the OM might subsequently move along the surface of the OM or might turn back into the capsule. Movement of the adsorbed virion was halted by anti-capsule IgG which caused trapping of the virus particles. The virion was eventually positioned over 1 of the adhesion sites at which inner and outer membrane are fused. After 4 min, the virus released its DNA, as judged from a decreased state of filling of the phage heads. The data support a multiple-step adsorption model.

L4 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1977:418632 HCAPLUS
DOCUMENT NUMBER: 87:18632
TITLE: Polysaccharide capsule of Escherichia coli: microscope study of its size, structure, and sites of synthesis
AUTHOR(S): Bayer, Manfred E.; **Thurow, Horst**
CORPORATE SOURCE: Fox Chase Cancer Cent., Inst. Cancer Res., Philadelphia, PA, USA
SOURCE: Journal of Bacteriology (1977), 130(2), 911-36
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This report describes the structure, size, and shape of the uncollapsed polysaccharide capsule of E. coli strain Bi 161/42 [O9:K29(A):H-], its ultrastructural preservation as well as the filamentous components of the isolated capsular material. In a temperature-sensitive mutant, sites were localized at which capsular polysaccharide is exported to the cell surface. The highly hydrated capsule of the wild-type cells was visible in the uncollapsed state after freeze-etching, whereas dehydration in ≥50% acetone or alc. caused the capsule to collapse into thick bundles. This was prevented by pretreatment of the cell with capsule-specific immunoglobulin G; the capsule appeared as a homogeneous layer of 250- to 300-nm thickness. The structural preservation depended on the concentration of the anti-capsular immunoglobulin G. Temperature-sensitive mutants, unable to produce capsular antigen at elevated temps., showed, 10-15 min after shift down to permissive temperature, polysaccharide strands with K29 specificity appearing at the cell surface at roughly 20 sites/cell; concomitantly, capsule-directed antibody started to agglutinate the bacteria. The sites at which the new antigen emerged were found in random distribution over the entire surfacee of the organism. Spreading of purified polysaccharide was achieved on air-water interfaces; after subsequent shadow casting with heavy metal, filamentous elements were observed with a smallest class of filaments measuring 250 nm in length and 3-6 nm in width. At one end these fibers revealed a knoblike structure of .apprx.10-nm diameter. The slimelike polysaccharides from mutants produced filamentous bundles of >100-μm length, with antigenic and phage-receptor properties indistinguishable from those of the wild-type K29 capsule antigen.

L4 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1975:406932 HCAPLUS
DOCUMENT NUMBER: 83:6932
TITLE: Structure of Klebsiella serotype 11 capsular polysaccharide
AUTHOR(S): **Thurow, Horst**; Choy, Yuen-Min; Frank, Norbert; Niemann, Heiner; Stirm, Stephan
CORPORATE SOURCE: Max Planck-Inst. Immunbiol., Freiburg, Fed. Rep. Ger.
SOURCE: Carbohydrate Research (1975), 41(1), 241-55
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Using periodate oxidation, methylation anal., the characterization of oligosaccharides obtained by partial acid hydrolysis, PMR spectroscopy, and anal. ultracentrifugation, the structure of the (mildly alkali-treated) Klebsiella serotype 11 capsular polysaccharide has been elucidated. The tetrasaccharide repeating unit has the sequence → 3)-β-D-Glcp-(1 → 3)-β-D-GlcUAp-(1 → 3)-α-D-Galp-(1 → with a 4,6-O-(1-carboxyethylidene)-α-D-galactosyl residue linked to O-4 of the glucuronic acid residue (Glc represents glucose, GlcUA represents glucuronic acid, Gal represents galactose, and p represents pyruvate). The structural basis for some serol. cross-reactions of the Klebsiella K11 antigen is discussed, and it is shown that rabbit antiserums against the Klebsiella K11 test-strain predominantly contain K agglutinins specific for branch-terminal 4,6-O-(1-carboxyethylidene)-D-galactose.

L4 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1975:404594 HCAPLUS
DOCUMENT NUMBER: 83:4594

TITLE: Bacteriophage-borne enzymes in carbohydrate chemistry. I. Glycanase activity associated with particles of Klebsiella bacteriophage number 11
AUTHOR(S): **Thurow, Horst**; Niemann, Heiner; Stirm, Stephan
CORPORATE SOURCE: Max Planck-Inst. Immunbiol., Freiburg, Fed. Rep. Ger.
SOURCE: Carbohydrate Research (1975), 41(1), 257-71
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The preparation and use of particles of Klebsiella bacteriophage Number 11 are described. A glycanase activity associated with the viruses catalyses the depolymerization of (alkali-treated) Klebsiella serotype 11 capsular polysaccharide, ultimately to a mixture of oligosaccharides consisting of 1 or 2 repeating units. Mainly glucosidic bonds are hydrolyzed. The substrate specificity of the viral enzyme has been characterized by using derivs. of serotype-11 polysaccharide, as well as 81 heterologous, bacterial, capsular glycans. The glycanase will (at least) also depolymerize all polysaccharides containing the unsubstituted chain-trisaccharide repeating-unit of its natural substrate.

L4 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1974:130227 HCAPLUS
DOCUMENT NUMBER: 80:130227
TITLE: Bacteriophage-induced colanic acid depolymerase
AUTHOR(S): Stirm, Stephan; Bessler, W.; Fehmel, F.; Freund-Moelbert, E.; **Thurow, H.**; Kochanowski, H.; Stuebig, H.; Thoma, H.
CORPORATE SOURCE: Max-Planck-Inst. Immunbiol., Freiburg, Fed. Rep. Ger.
SOURCE: Zentralblatt fuer Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, Abteilung 1: Originale, Reihe A: Medizinische Mikrobiologie und Parasitologie (1974), 226(1), 26-35
CODEN: ZMMPAO; ISSN: 0300-9688
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Phage m59, virulent for a mucoid mutant of Escherichia coli (F9095M) and specific for colanic acid (M antigen), has an isometric head with a set of spikes 40 + 125 Å. Plaques by m59 were surrounded by haloes caused by a phage-induced colanic acid depolymerase. This enzyme was isolated from lysates and purified. The purified enzyme was essentially a fucosidase, and was seen as oblong particles 40 + 135 Å with a central core or axis. Since the dimensions are similar to the phage spikes and enzyme activity occurred in purified phage, the depolymerase probably consists of free tail organelles.

L4 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1974:105669 HCAPLUS
DOCUMENT NUMBER: 80:105669
TITLE: Host capsule depolymerase activity of bacteriophage particles active on Klebsiella K20 and K24 strains
AUTHOR(S): **Thurow, Horst**; Niemann, Heiner; Rudolph, Claus; Stirm, Stephan
CORPORATE SOURCE: Max-Planck-Inst. Immunbiol., Freiburg, Fed. Rep. Ger.
SOURCE: Virology (1974), 58(1), 306-9
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Purified particles of 2 small bacteriophages, active on Klebsiella K20 or K24 strains, exhibited galactosidase or glucosidase activities, resp., that cause an extensive depolymn. of isolated host capsular polysaccharides.

L4 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1974:11716 HCAPLUS
DOCUMENT NUMBER: 80:11716
TITLE: Bacteriophage-induced depolymerase active on Klebsiella K11 capsular polysaccharide
AUTHOR(S): Bessler, Wolfgang; Freund-Moelbert, Elisabeth; Knuefermann, Hubert; Rudolph, Claus; **Thurow, Horst**; Stirm, Stephan
CORPORATE SOURCE: Max Planck-Inst. Immunbiol., Freiburg, Fed. Rep. Ger.
SOURCE: Virology (1973), 56(1), 134-51
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A capsule depolymerase induced by bacteriophage Number 11 on Klebsiella 390 (03:K11), was isolated. The material was essentially homogeneous in analytical ultracentrifugation and immunoelectrophoresis. It catalyzes the hydrolysis mainly of β-D-glucopyranoside-(1→3)-D-glucuronic acid, but also that of a few (1 in .apprx.20) D-galactopyranoside-(1→3)-D-glucose bonds in K11 capsular polysaccharide. The depolymerase consists of dimers of club- or drop-shaped particles of a molecular weight of 155,000 containing 1 polypeptide chain of .apprx.62,500 and 1 of 94,000 daltons. The Klebsiella bacteriophage Number 11 is an isometric virus; its head has a diameter of .apprx.450 Å. It bears a base plate of .apprx.265-Å diameter which has the shape of a 6-pointed star with a central hole or prop, carrying 2 spikes for each of its 6 points. The following observations support the view that the depolymerase consists of pairs of free spikes of phage 11. (1) The depolymerase monomers and phage spikes in situ have the same dimensions. (2) Polypeptide chains of the same size as the two in the depolymerase also occur in whole virus. (3) The free depolymerase shows approximately the same enzymic activity as do phage spikes in situ. Purified depolymerase and bacteriophage particles catalyze the hydrolysis of the same bonds in Klebsiella K11 capsular polysaccharide, ultimately forming oligosaccharide fragments of 1, 2, and 3 repeating units of the (alkali-treated) polymer. (4) Phage 11 and the depolymerase strongly cross-react serologically, and antidepolymerase IgG antibodies specifically adhere to the spike region of whole virus.

L4 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1930:5284 HCAPLUS
DOCUMENT NUMBER: 24:5284
ORIGINAL REFERENCE NO.: 24:612c-d
TITLE: Trimercapto-β-naphthol
AUTHOR(S): **Blumenstock-Halward, Eugen**; Riesz, Eugen
SOURCE: Monatshefte fuer Chemie (1929), 52, 377-8
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Reduction of 2,3,6,8-C10H4(OH)(SO2Cl)3 with Zn and concentrated HCl gives 2-hydroxytrimercaptonaphthalene, which, because of its ease of oxidation, is analyzed as the Pb salt. The EtOH solution of the free compound, warmed with picryl chloride and AcONa, gives tri[picrylmercapto]-2-naphthol, yellow, decomps. on heating. Reduction in AcOH-Ac2O gives an

acetoxytri[acetylmercapto] naphthalene, C15H16O6S3, m. 134°.

L4 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1930:2927 HCAPLUS
DOCUMENT NUMBER: 24:2927
ORIGINAL REFERENCE NO.: 24:360e-g
TITLE: β-Naphtholdisulfonyl chlorides
AUTHOR(S): Pollak, Jakob; Gebauer-Fulnegg, Erich; **Blumenstock-Halward, Eugen**
SOURCE: Monatshefte fuer Chemie (1929), 53;54, 83-9
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C. A. 22, 3653. The action of ClSO3H upon β-C10H7OH gives 2 isomeric chlorides, m. 111° and 177°. The former has been shown to be the 1,6-disulfonyl chloride; the latter is now shown to be the 1,5-isomer (I), since the same product results from 2,5-C10(OH)SO3H and from 2-carbethoxynaphthol-5-sulfonic acid, m. 101°. The latter results from 2,5-C10H6(OCO2Et)SO4K and ClSO3H as an intermediate production in the formation of I, as well as from I by the successive action of HCl, ClCO2Et and PCl5. 2-Naphthol-5-sulfonanilide, m. 188°, results from the acid and PhNH2. 2,7-C10H6(OH)SO2H and ClSO2H give 2-naphthol-1,7-disulfonyl chloride, m. 169°; the dianilide, m. 233°. The tri-Ba and tri-K salts of the 1,7-, 1,6- and 1,5-di-SO3H acids were prepared and analyzed. 2,4-C10H6(OH)SO3H gives a disulfonanilide, m. 290° whose structure has not been determined

L4 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1929:9734 HCAPLUS
DOCUMENT NUMBER: 23:9734
ORIGINAL REFERENCE NO.: 23:1129b-e
TITLE: Bathochromic action of the methylthiol group in azo dyes. I
AUTHOR(S): **Blumenstock-Halward, Eugen**; Jusa, Egon
CORPORATE SOURCE: Univ. Wien.
SOURCE: Monatshefte fuer Chemie (1928), 50, 123-38
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Advantage is taken of the bathochromic action of the MeS group observed by Brand to prepare from 3,6,8-trismethylthiol-β-naphthol and p-O2NC6H4N2X a reddish violet aso dye, markedly deeper in shade than the other dyes of this class ("ice colors"). The shade deepens successively in the dyes derived from the trisulfonic acid, trithiol and trismethylthiol derivs., corresponding with the change from sexavalent to bivalent S and methylation resp. The poor yields of the trithiol derivs. obtained makes tech. application impossible in this case. K O-Carbethoxy-β-naphthol-3,6,8-trisulfonate, heated with PCl5, gives the trisulfonyll choride (I), m. 195°. The action of PhNH2 causes partial hydrolysis of the CO2Et group, completed on recrystn., and yields β-naphthol-3,6,8-trisulfonanilide. O-Carbethoxy-3,6,8-trithiol-β-naphthol, m. 80-6° (decomposition), which could not be obtained pure, was formed in 15-20% yield by the reduction of I by adding HCl to the EtOH solution containing Zn dust in suspension. It is readily oxidized to polysulfides, and yields, with simultaneous hydrolysis of the CO2Et group, a dark red aso dye, with p-O2NC6H4N2X, slowly formed in neutral solution, rapidly in alkaline solution The orange-red Pb salt of the trithiol was obtained with

EtOH-Pb(OAc)2. The action of ClCO2Et yields O-carbethoxy-6,8-dithiol-3-carbethoxythiol-β-naphthol, m. 115-20° (decomposition), Hydrolysis with KOH yields 2,2'-dihydroxy-6,6',8,8'-tetrathiodinaphthalene-3,3'-disulfide (Pb salt), which yields 3,6,8-trithiol-β-naphthol (Pb salt) on reduction. O-Carbethoxy-3,6,8-trimethylthiol-β-naphthol, resinous, has no characteristic m. p., accompanied in certain case by 2,2'-di[carbethoxyoxy]tetramethylthiodinaphthalene disulfide, it was obtained from the trithiol with Me2SO4 and Na2CO3 and yields 3,6,8-trimethylthiod-β-naphthol, m. 140°, on hydrolysis with EtOH-KOH.

L4 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1928:31139 HCAPLUS
DOCUMENT NUMBER: 22:31139
ORIGINAL REFERENCE NO.: 22:3653b-e
TITLE: Constitution of the β-naphtholdisulfonyl chlorides
AUTHOR(S): Pollak, J.; **Blumenstock-Halward, Eugen**; Schlesinger, Alexander; Weinmayr, Viktor; Winter, Kurt
CORPORATE SOURCE: Univ. Wien
SOURCE: Monatshefte fuer Chemie (1928), 49, 203-12
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. preceding abstract ClSO3H and 2,6(or 1)-C10H6(OH)SO3H give β-naphthol-1,6-disulfonyl chloride, m. 111°, which establishes the structure of IV in the preceding abstract 2,8-C10H6(OH)SO3H, which might give the chloride, m. 177°, gave instead the 6,8-disulfonyl chloride (I), m. 161-2° (anilide, m. 195°). The constitution of I is established by reacting 2,6,8-C10H5(OH)(SO3H)2 with ClCO2Et and then with ClSO3H, giving O-carbethoxy-β-naphthol-6,8-disulfonyl chloride, m. 131°, whose anilide, m. 178°, on hydrolysis, gives the anilide of I. Similarly 2,3,6-C10H5(OH)(SO3H)2 gives O-carbethoxy-β-naphthol-3,6-disulfonyl chloride, m. 125° (anilide, m. 153-63°, which was not purified but hydrolyzed to 2-naphthol-3,6-disulfonanilide, m. 202°); this was not identical with the anilide from the chloride, m. 177°, as might be expected from the conversion of the latter into 2,3,6,8-C10H4(OH)(SO2Cl)3; this acid derivative, however, is also obtained from the chloride, m. 111°, which involves the migration of the SO2Cl group from the 1-position. It is, therefore, suggested that the chloride, m. 177° may be the 1,8-derivative Since 2,1-C10H6(OH)SO2Cl (Anschutz and Maxim, C. A. 13, 431) does not form a sulfonylide, it was thought that the SO2Cl group might be in some other position; O-acetyl-2-naphthol-6- and 8-sulfonyl chlorides, m. 103° and 129°, resp., were therefore prepared Since these are different from the compound of A. and M., there is no reason to question their structure. The 6-sulfonanilide, m. 95°, on hydrolysis gives 2,6-C10H6(OH)SO2NHPh, m. 161°; this m. p. does not agree with that of Zincke and Dereser (C. A. 12, 2559), viz. 100-5°; the anilide was prepared by their method and found to contain 2 mols. H2O, m. 100-5°, but on crystallization from C6H6, it m. 160-1°; recrystn. from H2O did not again give the low-melting form, which must be regarded as a labile form. O-Carbethoxy-2-naphthol-8-sulfonyl chloride, m. 118°; anilide, m. 195°; hydrolysis gives 2-naphthol-8-sulfonanilide, m. 195°, also obtained from the O-Ac derivative

L4 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1928:31138 HCAPLUS
DOCUMENT NUMBER: 22:31138
ORIGINAL REFERENCE NO.: 22:3652h-i,3653a
TITLE: Action of chlorosulfonic acid on phenols. IV
AUTHOR(S): Pollak, Jakob; Gebauer-Fulnegg, Erich; **Blumenstock-Halward, Eugen**
CORPORATE SOURCE: Univ. Wien.
SOURCE: Monatshefte fuer Chemie (1928), 49, 187-202
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C. A. 21, 2070. (With Eduard Peterill.) ClSO3H (I) acts on α-C10H7OH (II) at the ordinary temperature, the 2-SO3H derivative crystallizing out.

With an excess of I (5 times the weight of II for 2.5 hrs., or 10 times, for 1.5 hrs.), there results 1-napththol-2,4-disulfonyl chloride, m. 149° (anilide, m. 228°). Prolonged action (4-5 days) gives 1-naphthol-2,4,7(?)-trisulfonyl chloride, m. 172° (with 0.5 C6H6, 160°); anilide, m. 240° (decompose). Alkaline hydrolysis splits off 2 SO3H groups, giving probably the 7-SO3H derivative At 100°, I and II give the 4 SO3H derivative; at 160°, a black product, or with an excess of I, a resinous product, is obtained, from which a trichloronaphthalenesulfonyl chloride, m. 214°, is isolated. (With Kurt Winter.) The action of I upon β-C10H7OH (III) at the ordinary temperature gives only the 1-SO3H derivative; on standing, a mixture of disulfonyl chlorides is obtained. In C2H2Cl4 at 130°, there results the 6-SO3H derivative Excess of I yields a a mixture of 2 disulfonyl chlorides, m. 111° (IV) and 177° (V), whose constitution is studied in the following abstract The anilide from IV m. 191°, from V, 231°. Heating I and III at 130-40° gives 2-naphthol-3,6,8-trisulfonyl chloride, m. 196° (anilide, m. 152-5°, also obtained from O-carbethoxy-2-naphthol-3,6,8-trisulfonyl chloride). Heating III with 50 parts I 80 hrs. at 150-60° gives a compound containing Cl but not S, m. 120-2° (a dichloronaphthalene?) and a S-containing compound, m. 135-40°, probably a naphthoquinone derivative

L4 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1928:581 HCAPLUS
DOCUMENT NUMBER: 22:581
ORIGINAL REFERENCE NO.: 22:70e-f
TITLE: Action of aqua regia upon fluorene
AUTHOR(S): **Blumenstock-Halward, Eugen**
SOURCE: Monatshefte fuer Chemie (1927), 48, 99-101
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Fluorene (5 g.) in 150 cc. concentrated HCl and 50 cc. fuming HNO2, allowed to stand 14 days, gives a mixture of mono- and di-Cl derivs. of fluorenone, of which only the β-di-Cl derivative, m. 185-8°, could be identified.